



# भारत का राजपत्र

## The Gazette of India

प्राधिकार से प्रकाशित  
PUBLISHED BY AUTHORITY

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No. 48] NEW DELHI, SATURDAY, NOVEMBER 28, 1992 (AGRAHAYANA 7, 1914)

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके  
[Separate paging is given to this Part in order that it may be filed as a separate compilation]

### भाग III—खण्ड 2 [PART III—SECTION 2]

पेटेंट कार्यालय द्वारा जारी की गई पेटेंटों और डिजाइनों से सम्बन्धित अधिसूचनाएं और नोटिस  
[Notifications and Notices Issued by the Patent Office relating to Patents and Designs]

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Calcutta, the 28th November 1992

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1—247 GI/92

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Patent Office. (Head Office),  
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5th, 6th and 7th Floor,  
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Calcutta-700 020.

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## पेटेंट कार्यालय

## एकस्य तथा अभिकल्प

कलकत्ता, दिनांक 28 नवम्बर 1992

पेटेंट कार्यालय के कार्यालयों के पते एवं क्षेत्राधिकार

पेटेंट कार्यालय का प्रधान कार्यालय कलकत्ते में अधिष्ठित है तथा बम्बई, दिल्ली एवं मद्रास में इसके शाखा कार्यालय हैं, जिनके प्रादेशिक क्षेत्राधिकार जोन के आधार पर निम्न रूप में प्रदर्शित हैं :—

पेटेंट कार्यालय शाखा, टोडरी इस्टेट,  
तीसरा तल, लोअर परले, (पश्चिम).  
पम्बई-400013।

गुजरात, महाराष्ट्र तथा मध्य प्रदेश राज्य  
क्षेत्र एवं संघ शासित क्षेत्र गोवा, दमन तथा  
दिव एवं दादरा और नागर हवेली।

तार पता—“पेटेंटोफिस”

पेटेंट कार्यालय शाखा,  
एकक सं. 401 से 405, तीसरा तल,  
नगरपालिका बाजार भवन,  
सरस्वती मार्ग, करोल बाग,  
नई दिल्ली-110005।

हरियाणा, हिमाचल प्रदेश, जम्मू तथा कश्मीर,  
पंजाब, राजस्थान तथा उत्तर प्रदेश राज्य क्षेत्रों  
एवं संघ शासित क्षेत्र चंडीगढ़ तथा दिल्ली।

तार पता—“पेटेंटोफिस”

पेटेंट कार्यालय शाखा,  
61, बालाजाह रोड,  
मद्रास-600002।

आन्ध्र प्रदेश, कर्नाटक, केरल, तमिलनाडु राज्य  
क्षेत्र एवं संघ शासित क्षेत्र पाण्डिचेरी, लक्षद्वीप  
मिनिकाय तथा अमिनिविदि द्वीप।

तार पता—“पेटेंटोफिस”

पेटेंट कार्यालय (प्रधान कार्यालय)  
निजाम पैलेस, द्वितीय बहुतलीय कार्यालय,  
भवन, 5, 6 तथा 7वां तल,  
234/4, आचार्य जगदीश बोस रोड,  
कलकत्ता-700020।

भारत का अवशेष क्षेत्र

तार पता—“पेटेंट्स”

पेटेंट अधिनियम, 1970 या पेटेंट नियम, 1972 में अपेक्षित सभी आवेदन पत्र, सूचनाएं, विवरण या अन्य प्रलेख पेटेंट कार्यालय के केवल उपर्युक्त कार्यालय में ही प्राप्त किए जाएंगे।

शुल्क :—शुल्कों की कवायबी या तो नकद की जाएगी अथवा उपर्युक्त कार्यालय में नियंत्रक को भुगतान योग्य धनादेश अथवा डाक आदेश या जहाँ उपर्युक्त कार्यालय अवस्थित है; उस स्थान के अनुसूचित बैंक से नियंत्रक को भुगतान योग्य बैंक ड्राफ्ट अथवा बैंक द्वारा की जा सकती है।

## CORRIGENDA

In the Gazette of India, Part III Sec. 2 dated the 28th October, 1989 in page 1032, Col. 1 for Complete Specification No. 165465 read the application No. 3/Cal/87 dated 01-01-1987 just below the inventor.

In the Gazette of India, Part III, Sec. 2, dated the 6th January, 1990. In page-7, Col. 1 for application for Patent No. 392/Cal/86 filed on May 27, 1986 read the applicant as NEYRPIC instead of NEYPRIC.

In the Gazette of India, Part III, Sec. 2, dated the 19th May, 1990. In page 574, Col. 1 for application for Patent No. 68/Mas/88 filed on 2nd January, 1988 read the applicant as TAKEDA CHEMICAL INDUSTRIES LTD. instead of TEKEDA CHEMICAL INDUSTRIES LTD.

In the Gazette of India, Part III, Sec. 2, dated the 30th June 1990. (a) In page-691, Col. 1, for application for Patent No. 768/Del/85 filed on 19th September, 1985 read the applicant as B P CHEMICALS LIMITED instead of BB CHEMICALS LIMITED.

(b) In page 708, Col. 1, for application for Patent No. 870/Del/86 filed on 1st October, 1986 read applicant as VIDEOCOLOR instead of VIDEOCOLAR.

(c) In page-708, Col. 2, for application for Patent No. 871/Del/86 filed on 1st October, 1986, read the applicant as VIDEOCOLOR instead of VIDEOCOLAR.

In the Gazette of India, Part III, Sec. 2, dated the 7th July 1990 in page 730, Col. 1 for application for Patent No. 14/Cal/87 filed on 5th January, 1987 read the applicant as KLEIN, SCHANZLIN & BECKER AKTIENGESSELLSCHAFT instead of KLEIN SCHANZLIN & BECKER AKTIENGESSELLSCHAFT.

In the Gazette of India, Part III, Sec. 2, dated the 14th July 1990 in page-743, Col. 1, for application for Patent No. 862/Cal/87 filed on 3rd November, 1987 read the applicant as KRONE AKTIENGESSELLSCHAFT instead of KRONE AKTIENGESELISCHAFT.

In the Gazette of India, Part III, Sec. 2, dated the 28th July 1990 in page-841, Col. 2, for application for Patent No. 286/Mas/86 filed on 17th April, 1986 read the applicant as F. L. SMIDTH & CO. A/S. instead of F.I. SMIDTH & CO. A/S.

In the Gazette of India, Part III, Sec. 2, dated the 4th August, 1990 in page-870 Col. 2, for application for Patent No. 597/Del/86 filed on 9th July, 1986, read the applicant as LEIF NILSSON instead of LEIF NILSON.

## THE PATENT OFFICE

Calcutta, the 28th November 1992

### APPLICATION FOR PATENTS FILED AT THE HEAD OFFICE, 234/4, ACHARYA JAGADISH BOSE ROAD, CALCUTTA-20

The dates shown in the crescent bracket are the dates claimed under Section 135 of the Patents Act, 1970.

The 21st October 1992

- 765/Cal/92. Sri Jonmejoy Maity. Process of Automatic Movement of Wheel using the Buoyancy of Liquid.
- 766/Cal/92. Prolux Maschinenbau GmbH. Circuit arrangement for operating a discharge Lamp.
- 767/Cal/92. Teijin Limited & Teijin Seiki Co. Ltd. An apparatus for heat treating a synthetic yarn during false-twist Texturing and method for false-twist texturing.

The 22nd October 1992

- 768/Cal/92. Bhartia Electric Steel Company Limited. Improved Coupler and method of making same.
- 769/Cal/92. Himont Incorporated. Thermoplastic Polymer Compositions.
- 770/Cal/92. Himont Incorporated. Process for the removal of Carbon Monoxide from Alpha-Olefins and Saturated Hydrocarbons.
- 771/Cal/92. Pijush Kanti Dutta. A process for the Preparation of 2, 6-Dimethoxy 3-Methyl Carbazole- (1'-N-Hexyl 2, 2-Methyl Do-Decanoic Acid).
- 772/Cal/92. The Lemna Corporation. A wastewater treatment impoundment. (Divided out of No. 236/Cal/89; antedated to 27-03-1989).
- 773/Cal/92. The Lemna Corporation. A sprayer System for use with a floating aquatic plant water treatment system. (divided out of No. 236/Cal/89; antedated to 27-03-1989).
- 774/Cal/92. The Lemna Corporation. A waste water treatment system baffle and a system for controlling the chemical conditions in a wastewater treatment system. (Divided out of No. 236/Cal/89; antedated to 27-3-1989).
- 775/Cal/92. The Lemna Corporation. Reversible floating grid system. (Divided out of No. 236/Cal/89; antedated to 27-3-1989).

The 23rd October 1992

- 776/Cal/92. Himont Incorporated. Polyolefin Compositions and process for their preparation.
- 777/Cal/92. Hoechst Aktiengesellschaft. Water-soluble phthalocyanine dyes, processes for their preparation and their use.
- 778/Cal/92. Deutsche Voest-Alpine Industrieanlagenbau GmbH. Anode for a Direct-Current Electric Arc Furnace.
- 779/Cal/92. The Technology Partnership Ltd. System for Controlling fluid flow. (Convention No. 9122739.7; dated 25-10-91; U. K.).

The 23rd October 1992.

- 780/Cal/92. Misawa Homes Co., Ltd. Wood Meal and method of manufacturing the same.
- 781/Cal/92. Kabushiki Kaisha Meidensha. Process for forming contact material.

## ALTERATION OF DATE UNDER SECTION 16

- 171617 Antedated to 4th April, 1986.  
(145/Cal/91)
- 171618 Antedated to 24th April, 1986.  
(146/Cal/91)
- 171619 Antedated to 17th October, 1988.  
(365/Cal/91)

## COMPLETE SPECIFICATION ACCEPTED

Notice is hereby given that any person interested in opposing the grant of patents on any of the Applications concerned, may, at any time within four months of the date of this issue or within such further period not exceeding one month applied for on Form 14 prescribed under the Patents Rules, 1972 before the expiry of the said period of four months, give notice to the Controller of Patents on the prescribed Form 15 of such opposition. The written statement of opposition should be filed alongwith the said notice or within one month of its date as prescribed in Rule 36 of the Patents Rules, 1972.

The classifications given below in respect of each specification are according to Indian Classification and International Classification.

A limited number of printed copies of the specifications listed below will be available for sale from the Government of India Book Depot, 8, Kiran Sankar Roy Road, Calcutta, in due course. The price of each specification is Rs. 2/- (postage extra). Requisition for the supply of the printed specifications should be accompanied by the number of the specifications as shown in the following list.

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## स्वीकृत सम्पूर्ण विनिर्देश

एतद्वारा यह सूचना दी जाती है कि सम्बन्ध आवेदनों में से किसी पर पेटेंट अनुदान का विरोध करने के इच्छुक कोई व्यक्ति, इसके निर्गम की तिथि से 4 महीने या अधिक ऐसी अवधि जो उक्त 4 महीने की अवधि की समाप्ति के पूर्व पेटेंट नियम, 1972 के तहत विहित प्रपत्र 14 पर आवेदित एक महीने की अवधि से अधिक न हो, के भीतर कभी भी नियंत्रक, एकत्र को ऐसे विरोध की सूचना विहित प्रपत्र 15 पर दे सकते हैं। विरोध संबंधी लिखित वक्तव्य, उक्त सूचना के साथ अथवा पेटेंट नियम, 1972 के नियम 36 में यथा विहित इसकी तिथि के एक महीने के भीतर ही फाइल किए जाने चाहिए।

“प्रत्येक विनिर्देश के संदर्भ में नीचे दिए वर्गीकरण, भारतीय वर्गीकरण तथा अंतर-राष्ट्रीय वर्गीकरण के अनुरूप हैं।”

नीचे सूचीगत विनिर्देशों की सीमित संख्याक मूलित प्रतियां, भारत सरकार बुक डिपो, 8, किरण शंकर राय रोड, कलकत्ता में विक्रय हेतु यथा समय उपलब्ध होंगी। प्रत्येक विनिर्देश का

रूपांकन (चित्र आरेखों) की फोटो प्रतियां यदि कोई हों, के साथ विनिर्देशों की टंकित अथवा फोटो प्रतियों की आपूर्ति पेटेंट कार्यालय, कलकत्ता द्वारा विहित लिप्यान्तरण प्रभार जिसे उक्त कार्यालय से पत्र-व्यवहार द्वारा सुनिश्चित करने के उपरान्त उसकी अदायगी पर की जा सकती है। विनिर्देश की पृष्ठ संख्या के साथ प्रत्येक स्वीकृत विनिर्देश के सामने नीचे वर्णित चित्र आरेख कागजों को जोड़कर उसे 4 से गुणा करके; (क्योंकि प्रत्येक पृष्ठ का लिप्यान्तरण प्रभार 4/- रु. है) फोटो लिप्यान्तरण प्रभार का परिकलन किया जा सकता है।

C1. : 50 D.

171611

Int. Cl. : F 25 B, 43 / 00.

**"REFRIGERANT RECOVERY, PURIFICATION AND RECHARGING SYSTEM".**

Applicant : SPX CORPORATION, 700 TERRACE POINT  
 DRIVE POST BOX No. 3301, MUSKAGON, MICHIGEN-  
 49443-3301, UNITED STATES OF AMERICA.

Inventors (1) KENNETH WILLIAM MANZ, (2) ROGER DEAN SHIRLEY, (3) RICHARD DUANE PARKS, (4) DENNIS WAYNE HICKMAN.

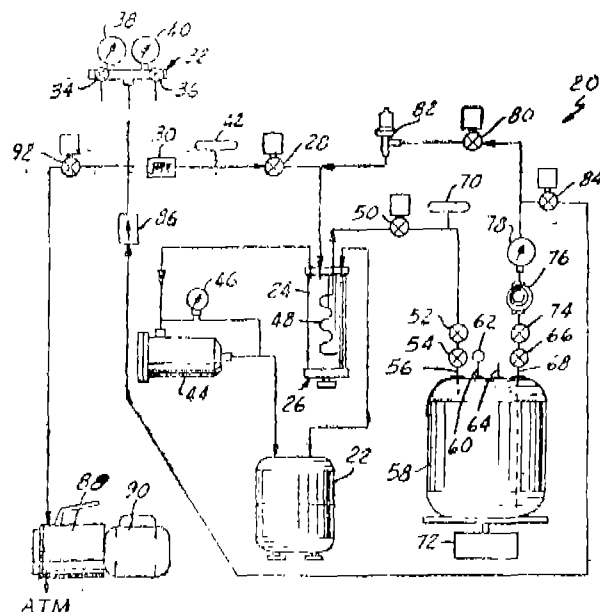
Application No. 30/Cal/89; filed on January 11, 1989.

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

## 24 Claims

A refrigerant recovery, purification and recharging system comprising :

- a refrigerant compressor having an input and an output;  
means including evaporator means for connecting said compressor input to a refrigeration system from which refrigerant is to be recovered;  
condenser means coupled to said compressor output in heat exchange relation to said evaporator means for liquifying refrigerant from said compressor output;  
refrigerant storage means having first and second ports;  
means for feeding liquid refrigerant from said condenser means to said first port;  
filter means for removing contaminants from refrigerant passing therethrough; and  
means for selectively circulating refrigerant in a closed path from said second port through said filter means to said first port.



Compl. specn. 23 pages.

Drgs. 5 sheets

C1 ; 112 D. 113 H.

171612

Int. Cl. : F 21 V 13 / 00; H 05 b 35 / 00.

"LIGHTLEAD ASSEMBLY".

Applicant : MDT CORPORATION, TORRANCE TECHNOLOGY CENTER 2300 205TH STREET, TORRANCE, CALIFORNIA 90501 USA.

Inventors: (1) LEONARD LELAND HALLINGS, (2) DONALD WILLIAM BRAMER, (3) BRUCE ARRINGTON SANBORN, (4) JAMES EDWARD SCHRYVER,

Application No. 352/Cal/1989; filed on May 9, 1989.

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

## 19 Claims

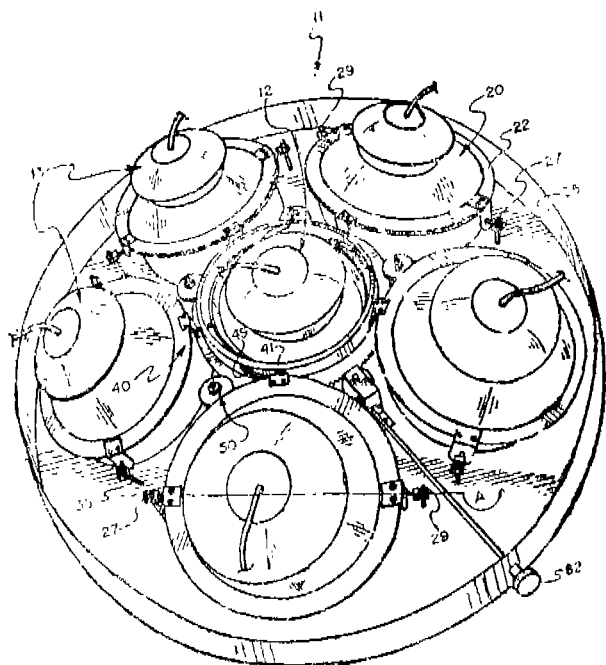
A lighthouse assembly, comprising a lighthouse containing a plurality of individual pivotally mounted spotlight and synchronous means for pivoting said spotlights to converge with light beams emanating from said spotlights at various locations along a central axis, the improvement comprising,

- a central pod, a lamp, said central pod being mounted within said lighthouse and constructed and arranged such that when said lighthouse is energized, said pod produces an axial light beam with respect to said lighthouse;
- a multiplicity of peripheral pods, each having lamp, said peripheral pods being mounted within said lighthouse symmetrically around said central pod on pivot mounts, said peripheral pods being constructed and arranged so that when said lighthouse is energized, said peripheral pods produce peripheral light beams originating symmetrically with respect to said axial light beam, said pivot mount permitting displacement of said peripheral pods within a range of pivotal movement, whereby the peripheral light beams originating from said peripheral pods may be caused to intersect said axial light beam at selected locations corresponding to selected amounts of displacement within said range of movement;
- coordination means operably associated with said peripheral pods, constructed and arranged to coordinate the pivotal movement of said peripheral pods so that all

of said peripheral light beams simultaneously intersect said axial light beam at any said selected location throughout said range of movement;

said coordination means having a cylindrical surface rotatably mounted within said lighthouse about an axis of rotation approximately parallel said axial light beam, said cylindrical surface element carrying camming surface means; and

reaction means, operably associated with each of said peripheral pods and said camming surface means to effect synchronized pivoting of said peripheral pods in a first direction as said cylindrical surface element is rotated clockwise and in a second direction, opposite said first direction, as said cylindrical surface element is rotated counterclockwise; drive means, mechanically coupled to, and constituting means for rotating, said cylindrical surface element; and handle structure external said lighthouse, mechanically coupled to said drive means and constituting means for actuating said drive means, said handle structure means being a first handle means at a first location external said lighthouse operably coupled to said drive shaft; and a second handle means at a second location external said lighthouse remote from said first location operably coupled to said drive shaft



Compl. specn. 19 pages.

Drgs. 4 sheets

Cl. : 90 I.

171613

Int. Cl. : C 03 3/00; C 03 B 17/00.

"METHOD OF PRODUCING TINTED SHEET GLASS".

Applicant : HARYANA SHEET GLASS LIMITED, 5, FANCY LANE, CALCUTTA-700001, WEST BENGAL, INDIA.

Inventors : (1) RABINDRA NARAYAN GUHA, (2) ARUN KUMAR VARSHNEY, (3) ASOKE KUMAR ROY.

Application No 893/Cal/89; filed on October 26, 1989.

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

#### 4 Claims

A method of producing tinted sheet glass comprising the steps of dipping the sheet glass in an aqueous coating composition, withdrawing the wet coated sheet glass and driving in the open atmosphere, baking the dried sheet glass in an electrically heated furnace at 520—540°C for 10 to 15 minutes and finally withdrawing the baked sheet glass from the furnace and cooling it to room temperature to obtain a tinted sheet glass, wherein the said coating composition comprises organic salts of one or more metals of the formula



dissolved in a carboxylic acid of the formula  $R_1 \cdot COOH$  and an alcohol of the formula  $R_2 \cdot OH$ , wherein M is a metal selected from Manganese, Cobalt, Nickel, Titanium and Iron,  $R_1$ ,  $R_2$  and R are alkyl radicals having 1 to 3 carbon atoms and n is an integer 2, 3 or 4 depending upon the valency of the metal M.

Compl. specn. 6 pages.

Drg. Nil

Cl. 131 A<sub>2</sub> & 3

171614

Int. Cl. : E 21 B, 7/04.

"DIRECTIONAL DRILLING APPARATUS".

Applicant & Inventor : JAMES BAIN NOBLE, OF 17 BLACKHOUSE TERRACE, PETERHEAD, SCOTLAND.

Application No. 937/Cal/89; filed on November 8, 1989.

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

#### 9 Claims

Directional drilling apparatus for deviating a drill bit on the lower end of a drill string substantially in a selected direction, said apparatus comprising upper end coupling means for coupling the upper end of said apparatus to the lower end of a said drill string, lower end coupling means for coupling of the drill bit to the lower end of said apparatus, force coupling means linking said upper and lower end coupling means for transmission of torsional and axial forces therebetween such that torque applied to said drill string in use of said apparatus is transmitted to the drill bit coupled to said lower end coupling means in use of said apparatus while axial downthrust or uplift applied to said drill string is transmitted to the coupled drill bit, said force coupling means further allowing the rotational axis of said lower end coupling means to be omni-directionally deviated with respect to the rotational axis of said upper end coupling means and the rotational axis of said drill string in use of said apparatus, characterised in that said apparatus comprises rotatable deviation direction control means for deviating the rotational axis of said lower end coupling means with respect to the rotational axis of said upper end coupling means in a direction according with rotation of said rotatable deviation direction control means, and in that said apparatus further comprises rotational drive means coupled to said rotatable deviation direction control means with respect to rotation of the drill-

string in use of said apparatus at a substantially equal and opposite rotational speed whereby to deviate the axis of said

lower end coupling means in a direction which is spatially substantially invariant.

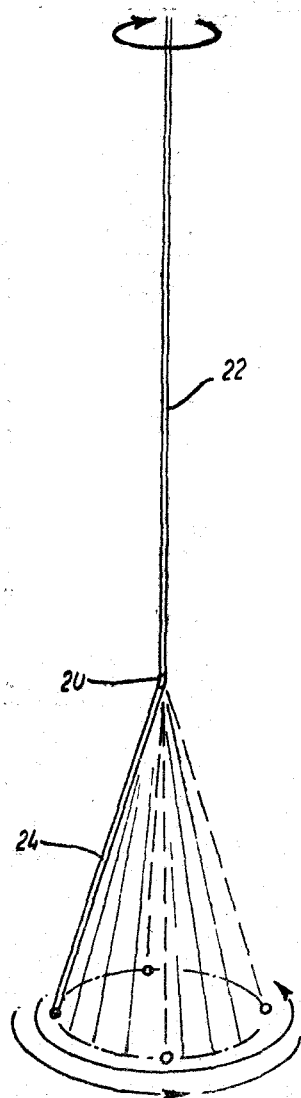


Fig. 1

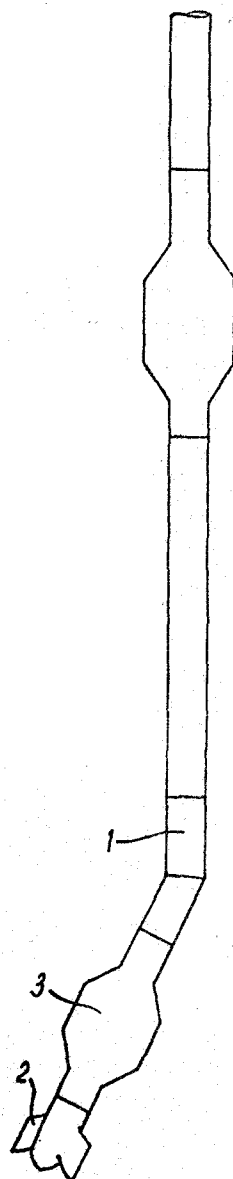


Fig. 2

Compl. specn. 23 pages.

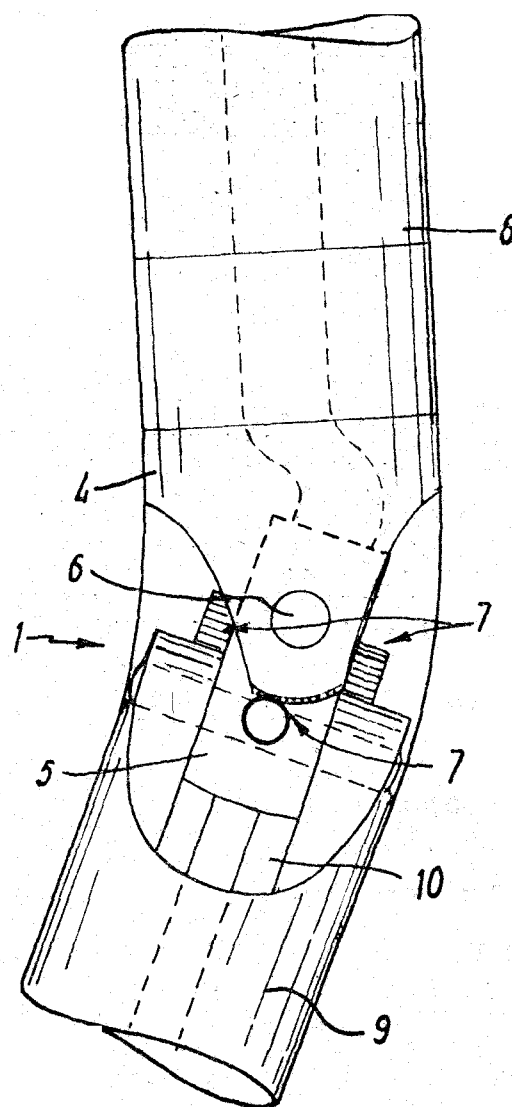


Fig. 4

Drgs. 5 sheets

### 32 Claims

Cl. : 32 F.

171615

Int. Cl. : C 07 C 17/38.

**"PROCESS FOR PURIFICATION OF SATURATED FLUOROHALOXYCARBONS AND MIXTURES THEREOF CONTAINING UNSATURATED IMPURITIES".**

Applicant : E. I. DU PONT DE NEMOURS AND COMPANY, LOCATED AT WILMINGTON, DELAWARE, UNITED STATES OF AMERICA.

Inventors : RICHARD EDWARD FERNANDEZ.

Application No. 949/Cal/89; filed on November 16, 1989.

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

A process for purification of saturated fluoroalohydrocarbons and mixtures thereof containing unsaturated impurities, the process comprising :

contacting said fluorohalocarbons and/or fluoroalohydrocarbons containing one or more unsaturated impurities in a substantially dry fluid state with a substantially dry amorphous solid metal oxide composition consisting essentially of cupric oxide, silver oxide, cobaltic oxide, manganese dioxide or a mixture of any two or more of said metal oxides, at a temperature upto 300°C and recovering in a manner known per se, said saturated fluorohalocarbons and/or fluoroalohydrocarbons being substantially free of said unsaturated impurities.

Compl. specn. 32 pages.

Drg. Nil

Cl. : 55 E<sub>4</sub>

171616

Int. Cl. : A 61 K 6/00, 7/16; 33/30.

"A PROCESS FOR PREPARING A STABLE AND CLEAR AQUEOUS COMPOSITION OF A PHARMACEUTICALLY ACCEPTABLE ZINC SALT".

Applicant : JOHNSON & JOHNSON CONSUMER PRODUCTS, INC., OF 501 GEORGE STREET, NEW BRUNSWICK, N. J. 08903, UNITED STATES OF AMERICA.

Inventors : (1) MICHAEL THOMAS SCHIRALDI, (2) ROBERT KENNETH DENNITON JR.

Application No. 921/Cal/90; filed on November 5, 1990.

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

## 11 Claims

A process for preparing a stable and clear aqueous composition of a pharmaceutically acceptable zinc salt comprising the steps of :

- dissolving a complexing agent selected from the group consisting of sodium gluconate, maleic acid, aspartic acid, gluconic acid, succinic acid, glucuronic acid, sodium glutamate, fumaric acid, and mixtures thereof in water;
- adding 0.05 to 1.0% by weight sodium carboxymethylcellulose or sodium alginate to the complexing agent solution of step (a);
- dissolving a pharmaceutically acceptable zinc salt in the solution of step (b) in sufficient concentration so that the zinc ion to carboxyl anion ratio is within the range from 4 : 1 to 15 : 1; and
- forming in a conventional manner a zinc/complexing agent/carboxymethylcellulose or alginate complex in solution.

Compl. specn. 24 pages.

Drg. Nil

Cl. : 32 F<sub>2</sub>b

171617

Int. Cl. : C 07 133/00, 85/00, 87/00.

"A PROCESS FOR PRODUCING DIMETHYLAMINE".

Applicant : E. I. DU PONT DE NEMOURS & COMPANY, LOCATED AT WILMINGTON, DELAWARE, UNITED STATES OF AMERICA.

Inventors : (1) HORACIO ENRIQUE BERGNA, (2) DAVID RICHARD CORBIN, (3) GEORGE CARL SONNICHEEN.

Application No. 145/Cal/91; filed on February 15, 1991.

(Divided out of No. 32/Cal/86 antedated to 24-4-86).

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

## 6 Claims

A process for producing dimethylamine, comprising reacting methanol and/or dimethylether and ammonia, in amounts sufficient to provide a carbon/nitrogen (C/N) ratio from about 0.2 to about 1.5 and at a temperature from about 250° to about 450°C, in the presence of a catalytic action of the zeolite characterized in that the said zeolite is a modified acidic zeolite selected from the group consisting of chabazite, erionite, ZK-5, and rho, the zeolite having been modified by treatment with at least one compound as herein described containing the element phosphorus, to deposit substantially on the external surfaces thereof at least 0.05 weight percent of the element and the reaction is carried out at pressure from 7 to 7000 Kpa.

Compl. specn. 40 pages.

Drg. Nil

Cl. : 32 F<sub>2</sub>b

171618

Int. Cl. : C 07 133/00, 85/00, 87/00.

"A PROCESS FOR PRODUCING DIMETHYLAMINE".

Applicant : E. I. DU PONT DE NEMOURS & COMPANY, LOCATED AT WILMINGTON, DELAWARE, UNITED STATES OF AMERICA.

Inventors : (1) HORACIO ENROQUE BERGNA, (2) DAVID RICHARD CORBIN, (3) GEORGE CARL SONNICHEEN.

Application No. 146/Cal/91; filed on February 15, 1991.

(Divided out of No. 322/Cal/86 antedated to 24-4-86).

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

## 6 Claims

A process for producing dimethylamine, comprising reacting methanol and/or dimethylether and ammonia, in amounts sufficient to provide a carbon/nitrogen (C/N) ratio from about 0.2 to about 1.5 and at a temperature from about 250° C, in the presence of a catalytic action of the zeolite characterized in that the said zeolite is a modified acidic zeolite selected from the group consisting of chabazite, erionite, ZK-5, and rho, the zeolite having been modified by treatment with at least one compound as herein described containing the element boron, to deposit substantially on the external surfaces thereof at least 0.05 weight percent of the element and conducted at a pressure from 7 to 7000 Kpa.

Compl. specn. 38 pages.

Drg. Nil

Cl. : 32 F 1.

171619

Int. Cl. : C 07 C 143/00.

"PROCESS FOR PREPARING ALKANESULFONYL CHLORIDE".

Applicant : PENN WALT CORPORATION, PENN WALT BUILDING, THREE PARKWAY PHILADELPHIA, PENNSYLVANIA 19102, UNITED STATES OF AMERICA.

Inventors : (1) ALTAF HUSSAIN, (2) GREGORY ALAN WHEATON.

Application No. 365/Cal/91; filed on May, 14, 1991.

(Divided out of No. 864/Cal/88 antedated to 17-10-88).

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

## 10 Claims

A process for preparing alkanesulfonyl chloride comprising contacting an alkanethiol mixed in aqueous hydrochloric acid with hydrogen peroxide to produce the corresponding alkanesulfonyl chloride, the concentration of hydrogen chloride being from 10 to 38 per cent based on the weight of the aqueous hydrochloric acid, said hydrogen peroxide being the form of an aqueous solution at a concentration ranging from 3 to 90 per cent based on the weight of the solution, the reaction being effected at a temperature of between 0 to 60°C.

Compl. specn. 12 pages.

Drg. Nil

Cl. : 32 F 1

171620

Int. Cl. : C 07 C 39/24, 79/26, 79/32.

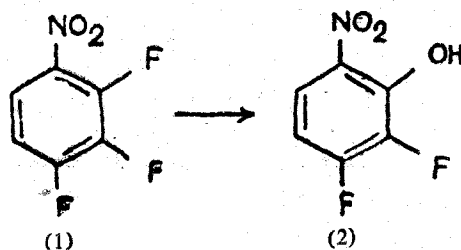
"PROCESS FOR THE PREPARATION OF 2, 3-DIFLUORO-6-NITROPHENOL".

Applicant : HOECHST AKTIENGESELLSCHAFT, D-6230 FRANKFURT AM MAIN 80, FEDERAL REPUBLIC OF GERMANY.

Inventors : (1) THEODOR PAPENFUHS, (2) JOACHIM JACKENBRUCH, (3) RALE PFIRMANN.

Application No. 697/Cal/91. filed on September 16, 1991.

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

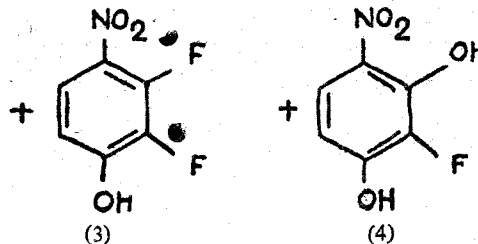


EQUATION (A)

Compl. specn. 9 pages.

8 Claims

A process for the preparation of 2, 3-difluoro-6-nitrophenol, which comprises reacting 2, 3, 4-trifluoronitrobenzene with aqueous alkali metal or alkaline earth metal hydroxide solution or suspension in the absence of organic solvent at temperatures of about 20°C to about 100°C, adjusting the reaction mixture to a PH of about 1 to about 6 by addition of acid, steam-distilling the resulting product and isolating the 2, 3-difluoro-6-nitrophenol from the distillate after cooling, no organic solvent being present in any process step.



Drg. 1 sheet

Ind. Cl. 167C

171621

Int. Cl.: B01J 27/133.

PROCESS FOR PURIFYING A LIQUID PHASE COMPRISING  $TiCl_4$  AND A HALOHYDROCARBON BY REMOVING CONTAMINANTS THEREFROM.

Applicant : SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B. V., a Netherlands company, of Carel van Bylandtlaan 30, 2596 HR, The Hague, The Netherlands.

Inventors : JEAN LOUIS BILHOU & BRIAN LESLIE GOODALL.

Application for Patent No. 448/DEL/86 filed on 20 May 1986.

Convention date 22 May 1985/8513000/(U.K.).

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi.

(Claims 3)

A process for purifying a liquid phase comprising  $TiCl_4$  and a haloalkohydrocarbon as herein described and one or more contaminants of the formula  $TiCl_3$  OR, in which R is an alkyl or aryl group, by removing the said contaminants, characterized in that the liquid phase is reacted with an

organic acid halide of formula  $R'-C(=O)Cl$ , in which  $R'$  is same as R, to precipitate an addition complex of the formula

$n TiCl_4 \cdot R'-C(=O)OR$ , in which n is a number of from 0-3 to 3-0; group  $-OR$  represents an alkoxy group of from 1 to 8 carbon atom,  $R'$  is a substituted or unsubstituted phenyl group and the addition complex is separated in any known manner from the liquid phase.

(Complete specification 6 pages).

Ind. Cl : 170D.

171622

Int. Cl.: C11D 3/32.

ANTISTATIC COMPOSITIONS.

Applicant : COLGATE-PALMOLIVE COMPANY, of 300 Park Avenue, New York, New York 10022, United States of America, a corporation organised under the laws of the State of Delaware, U.S.A.

Inventors : ROBERT JOHN STELTENKAMP & MICHAEL ARMAND CAMARA.

Application for Patent No. 484/DEL/86 filed on 2 Jun 1986.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

(Claims 22)

An antistatic composition comprising an amide as herein described and a quaternary ammonium salt as herein described, the proportion of amide(s) being from 2 to 10 times that of said quaternary ammonium salt.

(Complete specification 49 Pages Drawing sheet 1).

Ind. Cl : 32F2(b)

171623

Int. Cl.: C07D-295/00, 295/02

"PROCESS FOR THE PRODUCTION OF 2, 2, 6, 6-TETRAALKY-4-PIPERIDYLAMINES".

Applicant : UNIROYAL CHEMICAL COMPANY, INC., a corporation organized under the laws of the state of New Jersey, one of the United States of America, located at World Headquarters, Middlebury, Connecticut 06749, U.S.A.

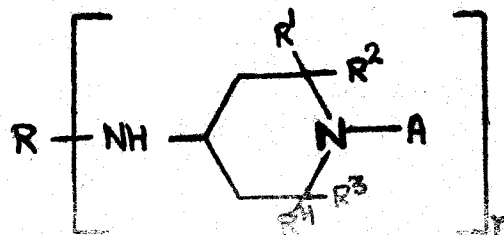
Inventor(s) : RUSSELL E. MALZ & HAROLD GREENFIELD.

Application for Patent No. 494/DEL/86 filed on 4 Jun, 1986.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

(Claims 9)

A process for producing 2, 2, 6, 6-tetraalky-4-peridylamines of the formula I shown in the accompanying-drawings.



FORMULA-I

Wherein R is  $C_1-C_{18}$  alkyl,  $C_5-C_6$  cycloalkyl or  $C_7-C_9$  aralkyl  $R^1, R^2, R^3$  and  $R^4$  are the same or different and are  $C_1-C_8$  alkyl,

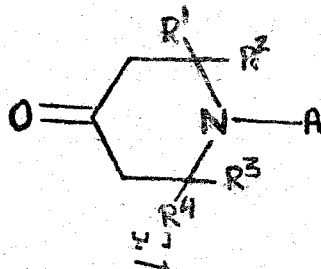


A is hydrogen, hydroxy,  $C_1-C_8$  alkoxy,  $C_1-C_8$  alkyl  $C_2-C_{10}$  alkylcaronyl or arylcarbonyl; and

n is 1, 2, 3, or 4;

with the proviso that when n is 2, 3, or 4, the  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ , and A substituents of the piperidine rings may each independently be different member within the scope of their definitions;

Which process comprises reacting an amine of the formula  $R(NH_2)_n$  where R and n are as defined above, with at least one 2, 2, 6, 6-tetraalkyl-4-piperidone of the formula II as shown in the drawings



FORMULA II

wherein A,  $R^1$ ,  $R^2$ ,  $R^3$ , and  $R^4$  are as defined above;

in the presence of a catalyst selected from the group consisting of platinum, nickel and cobalt with or without the presence of a polar solvent selected from the group consisting of  $C_1-C_{10}$  aliphatic alcohols and  $C_2-C_6$  aliphatic glycols characterised in that said reaction is carried out in a reaction medium containing from 10 to 100% by weight of water, at a pressure of between 15 to 2000 PSI and a temperature of between 15 to 100°C.

Compl. specn. 17 pages.

Drg. Sheet—1)

Ind. Cl : 32F(3C)

171624

Int. Cl : C07C 27/00, 29/00.

Title : IMPROVED PROCESS FOR RECOVERY OF ALCOHOLS FROM ACID/ALCOHOL FEED STREAMS.

Applicant : EXXON RESEARCH AND ENGINEERING COMPANY, A CORPORATION OF DELAWARE, UNITED STATES OF AMERICA, CARRYING ON BUSINESS AS A COMPANY FOR THE HOLDING OF PATENTS AND GRANTING LICENSES THEREUNDER, AND TECHNICAL DEVELOPMENT AND RESEARCH WORK AT 180 PARK AVENUE, FLORHAM PARK, NEW JERSEY, UNITED STATES OF AMERICA.

Inventors : WILLIAM DANIEL, DINANA, CHUEN YUAN-YEH.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi.

(Claims 17)

An improved process for recovering alcohols from acid/alcohol feedstreams comprising aqueous strong acid solutions containing said alcohols which comprises (a) contacting said acid/alcohol feedstream in an extraction zone with 0.3 to 5 part by wt. of an extraction solvent of the kind such as herein described based on the weight of said feedstream, said extraction solvent being selected from carboxylic acids of

the formula  $R-C(=O)OH$  where in R is alicyclic or acyclic carboxylic acid group having from 6 to 20 carbons per molecule and mixtures thereof, for 0.1 to 6 hours, at a temperature of from 25 to 100-degree centigrade to selectively extract said alcohol from said acid/alcohol feedstream and to form a first liquid phase comprising an alcohol-enriched carboxylic acid extract, and a second liquid phase comprising an aqueous strong acid raffinate depleted in alcohol and containing minor amounts of said carboxylic acid extraction solvent, (b) recovering in any known manner, said alcohol-enriched carboxylic acid extract, and (c) contacting said second liquid phase in a contacting zone with an organic extractive agent of the kind such as herein described at a temperature of from 30 to 150°C from 0.1 to 5 hours to

separate at least a majority of said carboxylic acid extraction solvent from said second liquid phase and to form a third liquid phase comprising said separated carboxylic acid extraction solvent and said organic extractive agent and a fourth liquid phase comprising an aqueous strong acid solution depleted in alcohol and also depleted in said carboxylic acid extraction solvent and recycling said carboxylic acid extraction solvent to said extraction step for recovering any traces of said alcohol.

(Complete Specification 47 pages drawing sheet 2).

Ind. Cl : 47E.

171625.

Int. Cl : C10B 7/02.

Title : A DEVICE FOR DRAGGING OUT COKE FROM BEEHIVE COKE OVENS.

Applicant : COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH RAFI MARG, NEW DELHI-110 001, INDIA, AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XXXI OF 1860).

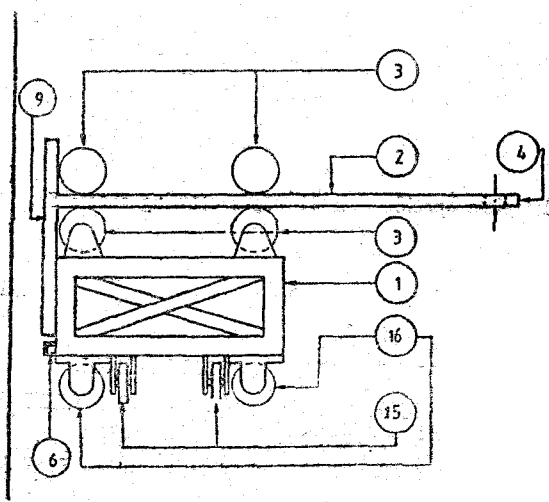
Inventors : KUNDA SINGH & MUTHOLI VARIKOTIL PRABHAKARA MENON.

Application for Patent No. 326 DEL 87 filed on 15 Apr. 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

(Claims 5)

A device for dragging out coke from beehive coke ovens comprising a drag bar unit shown in Figure (4) of the drawings, to be attached to a drag head unit shown in Figure (5) of the drawings, characterised in that the drag bar unit consists of a retractable drag-bar (2), the front end of which is to be linked with the drag-head unit, the rear end (9) of the drag bar acts as a stopper at the completion of the forward movement of the drag-bar (2), the drag bar (2) being mounted on a movable carriage (1) by means of smooth rollers (3) the drag head unit having removable lock bars (8) for engaging the drag bar and is provided with a pushing head (10) for discharging coke from the oven during the backward movement of the drag bar, the drag head unit being mounted on a carriage with wheels (11), quick disengagement device is also provided in the carriage with wheel (11) for quick disengagement of the drag bar unit from the drag head unit either outside or inside the oven, the carriage also being provided with a removable tail bar (12) to impart stability to the drag head unit, the drag bar carriage being provided with a hook which in turn is connected by flexible wire or rope or link chain to a winch or the like for hauling the drag bar along with the interlocked drag head unit for dragging out the coke from the beehive coke oven.



(Complete specification 11 pages drawing sheets 7).

Ind. Cl.: 206E.

171626

Int. Cl.: H04B 1/02.

Title: DYNAMIC ANTENNA TUNING SYSTEM FOR SYNCHRONOUS AND AUTOMATIC TUNING OF VLF ANTENNAS.

Applicant: MEGAPULSE INCORPORATED, A DELAWARE CORPORATION OF 8 PRESTON COURT, BEDFORD, MASSACHUSETTS, U.S.A.

Inventors: PAUL ROMBERG JOHANESSEN & PETER VER PLANCK.

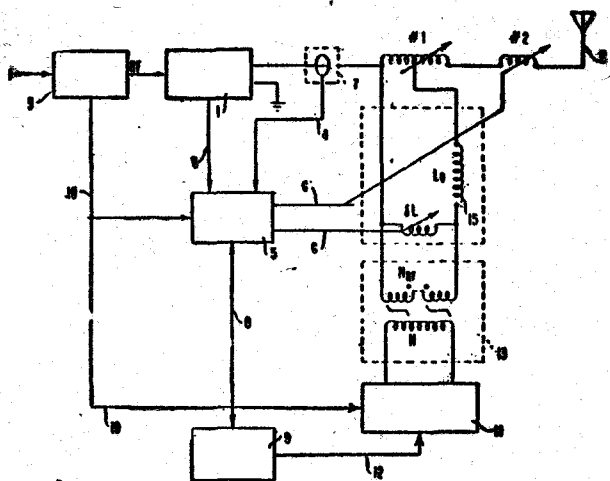
Application for Patent No. 381 DEL 1987 filed on 4 May 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## (Claims 3)

A dynamic antenna tuning system for synchronous and automatic tuning of VLF antennas connected with keyed transmitters, comprising a variometer (# 1 & # 2) having a variable tuning inductance (# 2) connecting the transmitter (1) to the antenna (2); a coupling network (15) having variable inductance (8L) connected to the variometer (# 1) saturable core balanced magnetic switching (modules 13) means connected to switch the coupling network (15); a control current generator (11) comprising charging and discharging circuits for generating control impulses to saturate and reset the magnetic switching (13) means and an automatic circuit tuning circuit (5) interposed between a control current generator and transmitter responsive to the frequency of the transmitter for causing successive and gradual variations of the variable tuning inductance (# 2) of the variometer (# 1 & # 2) and the variable inductance (8L) of the coupling network (15) to effect tuning of the antenna system to the desired radiated frequencies.

Fig. 1



(Complete specification 21 pages drawing sheets 5).

Ind. Cl.: 40B.

171627.

Int. Cl.: C08F 4/00.

Title: NOVAL CATALYST COMPOSITION.

Applicant: SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B. V., OF CAREL VAN BILANDT-LAAN 30, 2596 HR THE HAGUE, THE NETHERLANDS, A COMPANY ORGANISED UNDER THE LAWS OF THE NETHERLANDS, A RESEARCH COMPANY.

Inventors: JOHANNES ADRIANUS MARIA VAN BROEKHOVEN & RICHARD LEWIN WIFE.

Application for Patent No. 384 DEL 87 filed on 4 May 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## (Claims 14)

Catalyst compositions for use in the preparation of polymers of carbon monoxide with one or more olefinically unsaturated organic compounds, said compositions comprising

- a palladium compound,
- an anion of an acid having a pKa of less than 2, excepting hydrohalogenic acids, in a quantity of 1.0-100 equivalents per gram atom of Pd,
- a b.sphosphine of the general formula  $R_1R_2P-PR_3R_4$ , wherein  $R_1, R_2$  represent similar or dissimilar hydrocarbyl groups which may or may not be substituted with polar groups, with the proviso that at least one of the groups  $R_1, R_2$  is a polar substituted aryl group containing at least one polar substituent in a position ortho to phosphorus, and wherein R represent a bivalent organic bridging group containing at least two carbon atoms in the bridge, in a quantity of 0.1-2 mol per mol of Pd compound.

(Complete specification 25 pages).

Ind. Cl.: 104 P XII(1).

171628.

139-G IV(2)

Int. Cl.: C08 K. 3/06.

C 08J. 3/24.

Title: A NOVEL PROCESS FOR DEPOSITING SULPHUR ON A CARRIER SURFACE.

Applicant & Inventor: PRASANTA KUMAR BHATTACHARYA, AN INDIAN NATIONAL OF 2635, NAYA BAZAR, DELHI-110006.

Application for Patent No. 385 DEL 87 filed on 4 May 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## (Claims 6)

A novel process for depositing sulphur on a carrier such as silica particles which comprises in the steps of preparing an intimate mix of particulate inert silica and soluble sulphur in the ratio of 40 : 60 to 99 : 1, subjecting said mix to the step of heating to a temperature of 115°C -190°C in an inert atmosphere and for a period till soluble sulphur deposit on the surface of said silica particles.

(Complete specification 10 pages).

Ind. Cl.: 10 A.

171629

Int. Cl.: F 42B 3/00.

Title: A PROCESS FOR THE PRODUCTION OF A CARTRIDGED EXPLOSIVE.

Applicant: AECI LIMITED, OF : OFFICE TOWER, CARLTON CENTRE, COMMISSIONER STREET, JOHANNESBURG, TRANSVAAL, REPUBLIC OF SOUTH AFRICA, A SOUTH AFRICAN COMPANY.

Inventors: PIETER STEPHANUS JACOBUS HALLIDAY, CARL HERMANUS LUBBE, LYNETTE SWARTZ & ALLAN JAMES HARRIS.

Application for Patent No. 528/DEL/87 filed on 22 Jun 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## 14 Claims

A process for the production of a cartridged explosive which comprises forming by any conventional method, an emulsion of a conventional fuel and a conventional oxidizing salt, said emulsion having a discontinuous phase which forms the oxidizing salt containing component and a continuous phase which is immiscible with said discontinuous phase and which forms fuel component solid at ambient temperature characterised by introducing a density-reducing agent of the kind such as herein described into the emulsion and dispersing it therein while the emulsion is at an elevated temperature of 85 to 90°C and is essentially liquid, to form an explosive, cartridging in any known manner the explosive containing the density reducing agent, cooling the cartridged explosive by means of a refrigerated fluid of the kind such as herein described so that the continuous phase solidifies, thereby entrapping the density reducing agent and stabilizing its dispersion in the explosive.

(Compl. specn. 45 pages.

Drgs. 3 sheets)

Int. Cl.: 107 C &amp; G.

171630

Int. Cl.4 : F 02 B 41/08.

## AN INTERNAL COMBUSTION ENGINE CYLINDER ASSEMBLY.

Applicant & Inventor : JOHN VELENCEI, A U. S. CITIZEN OF DALY ROAD, FAR HILLS, STATE OF NEW JERSEY 07931, UNITED STATES OF AMERICA.

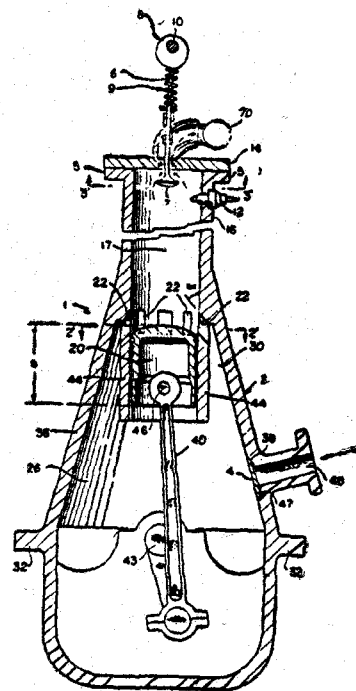
Application for Patent No. 634/DEL/87 filed on 27 Jul 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## 2 Claims

An internal combustion engine cylinder assembly comprising an elongated cylinder (16) having substantially vertically disposed interior walls providing an elongated firing chamber (17) therein; piston means (20) housed within said firing chamber (17) for vertical reciprocation therein; gas inlet means (22) in the lower portion of said firing chamber; a crankcase housing (2) having a gas compression chamber (26) disposed therein; an inlet valve (4) connected to said gas compression chamber for passing fuel/air mixtures thereto upon depressuring thereof; one or more exhaust valves (7) provided at or adjacent to the upper end of said cylinder (16); fuel ignition means (12) for igniting a compressed fuel/air mixture in said firing chamber (17); characterised by at least a portion (44) of said elongated cylinder (16) inner walls extending downwardly into said gas compression chamber (26) and housing at least a portion of said piston means (20) therein during the full downstroke of said piston means (20); the upper portion of said crankcase housing (2) having inwardly sloping walls which form a converging gas space (30) in the upper portion of said gas compression chamber (26) annularly about said downwardly extending cylinder portion (44) thereby forming a converging gas space, said gas inlet means being gas inlet channels providing gaseous communication between said firing chamber (17) and said converging gas space (30), and said piston means (20) cyclically opening and closing

said gas inlet channels to control said gaseous communication; said piston means (20) cooperating with said exhaust means (7) and said fuel ignition means (12) for controlling the pressurization and charging of fresh fuel/air mixtures into said firing chamber (17) from said converging gas space (30) and the compression of said fuel/air mixtures and the ignition thereof in said firing chamber (17) to generate power and to remove from said firing chamber (17) the thus generated exhaust gases.



(Compl. specn. 18 pages.

Drgs. 2 sheets)

Ind. Cl. : 143 C XL (5).

171631

Int. Cl.4 : B 65 B 27/00.

## A BAND SLING FOR CARRYING PACKED LOADS.

Applicant : BALTIISKOE TSENTRALNOE PROEKTNO-KONSTRUKTORSKOE BIURO S EXPERIMENTALNYM (OPYTNYM) PROIZVODSTVOM OF ULITSYA GAPSAL-SKAYA 3, LENNINGRAD, U.S.S.R., AN INSTITUTE ORGANISED AND EXISTING UNDER THE LAWS OF U.S.S.R.

Inventor : YAKOV DAVIDOVICH FELDMARK.

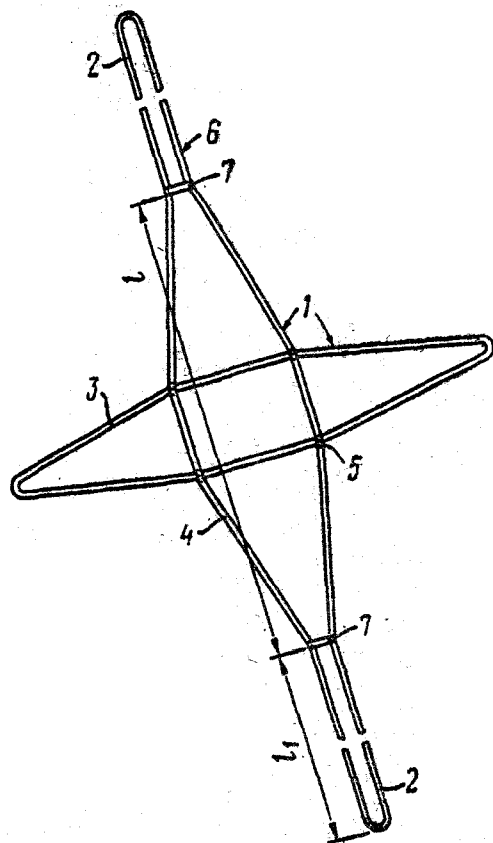
Application for Patent No. 661/DEL/87 filed on 30-7-1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## 3 Claims

A band sling for carrying packed loads, said band sling having a load supporting portion (1) comprising two loops (3, 4) crossing each other and joined together at the intersections (5), and loopshaped terminating (2) portions, one

of the loops (4) of the load supporting portion and the loops of the terminating portions being integral so as to constitute a common (6) loop.



(Compl. specn. 9 pages.

Drgs. 3 sheets)

Ind. Cl. : 206 E LXII.

171632

Int. Cl.4 : G 06 F 3/00, 13/00.

#### BUS INTERFACE CIRCUIT FOR DIGITAL DATA PROCESSOR.

Applicant : DIGITAL EQUIPMENT CORPORATION, A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF MASSACHUSETTS, UNITED STATES OF AMERICA, OF 146 MAIN STREET, MAYNARD, MASSACHUSETTS 01754, UNITED STATES OF AMERICA

Inventors : PAUL IRWIN RUBINFELD, ANIL K. JAIN.

Application for Patent No. 734/DEL/87 filed on 21st August, 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

#### 7 Claims

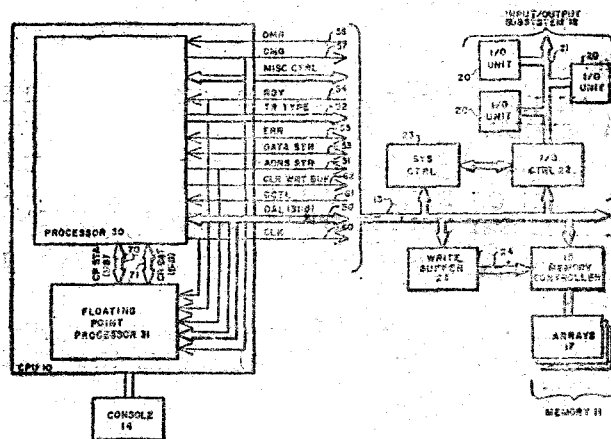
A bus interface circuit (33) for digital data processor, said circuit for connection to a processing circuit (30, 31, 14, 40) and a bus (13, 13A) for transferring information over said bus (13) from at least one unit (12) to said processing circuit for processing, and for transferring processed information over said bus (13, 13A) from said processing circuit to said at least one unit, said interface circuit having :

A as input latch (254) connected to said processing circuit (30, 31) and for connection to said bus (13) for latching information received from said at least one unit (12) for transfer to said processing circuit;

B. an output latch (251, 252) connected to said processing circuit (30, 31) and for connection to said bus (13) for latching information from said processing circuit for transfer to said at least one unit;

C. an interface control circuit (270, 271) having :

- (i) an internal state control circuit (270) connected to said processing circuit (30, 31), said output latch, (251, 252) and said input latch (254) for controlling information transfers between said processing circuit and said output latch (251, 252) and said input latch (254);
- (ii) an external state control circuit (271) connected to said input latch (254), said output latch (251, 252) and for connection to said bus (13) for controlling information transfers between said at least one unit (12) and said input latch (254) and said output latch (251, 252) and
- (iii) a condition indicator (276) connected to said internal state control circuit (270) and said external state control circuit (271) and controlled by said internal state control circuit to have a selected condition in response to conditions of said input latch (254) and said output latch (251, 252) to thereby control operations of said external state control circuit (271).



(Compl. specn. 63 pages.

Drgs. 4 sheets)

Ind. Cl. : 98 G VII (2).

171633

Int. Cl.4 : F 28 F 3/00.

#### A PLATE HEAT EXCHANGER.

Applicant : GERHARD FISCHER, OF LINKE BAHNZEILE 22, A-2483 EBREICHS DORF, AUSTRIA, AN AUSTRIAN CITIZEN.

Inventor : IDEM.

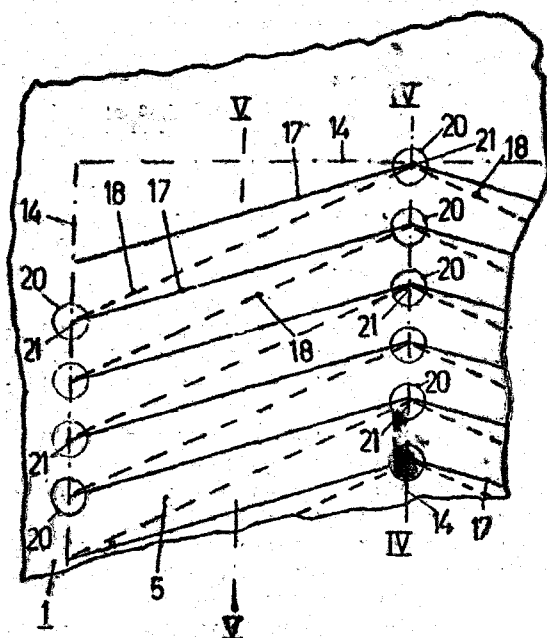
Application for Patent No. 761/DEL/87 filed on 28th Aug. 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

#### 13 Claims

A plate heat exchanger having at least three slacked heat exchanger plates (1, 2), with two successive adjacent heat exchanger plates forming a flow passage (3, 4) together, said heat exchanger plates (1, 2) being made of sheet metal and being provided with a pressed-in corrugation pattern (5) covering the flow passage (3, 4) for forming flow channels between the plates (1, 2) and for mutual support of the plates (1, 2), the corrugation pattern (5) providing grooves

(9, 10) extending transversely to the direction (11) of corrugation and at an angle to the flow centre-line (7), the surface of the corrugation pattern (5) of each heat exchanger plate (1, 2) consisting of a plurality of adjacent plate sub-portions (5a, 5b, 5c, 5d), the grooves (9, 10) in the individual sub portions (5a, 5b, 5c, 5d) each forming a system of parallel groove portions (12) terminating at the boundaries of the respective plate sub portion (5a, 5b, 5c, 5d), the systems of groove portions (12) of different plate sub portions (5a, 5b, 5c, 5d) extend at an angle to one another and there is disposed opposite and in alignment with each plate sub portion (5a, 5b, 5c, 5d) of the corrugation pattern (5) of a heat exchanger plate (1, 2) an equally large sub portion (5a, 5b, 5c, 5d) of the corrugation pattern (5) of another heat exchanger plate (1 or 2) providing a flow passage (3, 4) with said first plate (1 or 2), characterised in that crests (17) of the corrugations of one exchanger plate (1 or 2) of at least one pair of heat exchanger plates (1, 2) which together provide said flow passage (3, 4) are supported only in the zone of the ends (21) of the groove portions (12) of said plate at the opposite corrugation crests (18) of the other plate of said pair of exchanger plates (1, 2), again in the ends (21) of the groove portions (12) of said other plate, and freely span the distance between these points of support (20).



(Compl. specn. 29 pages.

Drgs. 8 sheets)

Ind. Cl. : 32 B IX(1).

171634

Int. Cl. : C 07 C 7/09.

Title : A PROCESS FOR SEPARATION OF HYDRO-CARBON GASES.

Applicant : THE M. W. KELLOGG COMPANY, A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF DELAWARE, UNITED STATES OF AMERICA, OF THREE GREENWAY PLAZA, HOUSTON, TEXAS 77046-0395, UNITED STATES OF AMERICA.

Inventors : SHANMUK SHARMA, DONNIE KEITH HILL, CHARLES ARTHUR DURR.

Application for Patent No. 765/Del/87 filed on 31st August, 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## 6 Claims

A process for producing a gaseous light hydrocarbon product stream from a high pressure gaseous feed stream containing mixed light hydrocarbons which comprises :

- expanding said high pressure gaseous feed stream in a manner such as herein described to a first intermediate pressure and introducing the resulting expanded feed stream to a first single equilibrium separation zone for separation said feed expanded feed stream into a first vapor stream and a separate first liquid stream;
- separately withdrawing said first vapor stream and said separate first liquid stream from said first single equilibrium separation zone;
- elevating the pressure of said first liquid stream to a second intermediate pressure;
- revaporizing said first liquid stream by heat exchange with said high pressure gaseous feed stream and introducing the revaporized stream into a multi-equilibrium separation zone for producing ethane-containing gaseous mixture;
- withdrawing said ethane-containing gaseous mixture from said multi-equilibrium separation zone and cooling said ethane-containing gaseous mixture by heat exchange with a refrigerant stream;
- introducing said cooled ethane-containing gaseous mixture into a second single equilibrium separation zone for separating said cooled ethane-containing gaseous mixture into second vapor stream and a separate second liquid stream;
- separately withdrawing said second vapor stream and said separate second liquid stream from said second single equilibrium separation zone and expanding said separate second liquid stream through a valve and introducing said resulting expanded second liquid stream into said first single equilibrium separation zone; and
- combining said first vapor stream and said second vapor stream to provide said gaseous light hydrocarbon product stream.

(Compl. specn. 14 pages.

Drg. one sheet)

Ind. Cl. : 32 B IX (1).

171635

Int. Cl. : C 07 C 7/09.

Title : PROCESS FOR SEPARATION OF HYDRO-CARBON MIXTURES.

Applicant : THE M. W. KELLOGG COMPANY, A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF DELAWARE, UNITED STATES OF AMERICA, OF THREE GREENWAY PLAZA, HOUSTON, TEXAS 77046-0395, UNITED STATES OF AMERICA.

Inventors : SHANMUK SHARMA, DONNIE KEITH HILL, CHARLES ARTHUR DURR.

Application for Patent No. 766/Del/87 filed on 31st August, 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## 5 Claims

A process for separating hydrocarbons of the kind such as herein described in a first fractionation zone having a bottoms reboiler and a second fractionation zone having a bottoms reboiler which comprises :

- introducing a hydrocarbon mixture to at least a first upper feed point of the first fractionation zone and recovering therefrom a first overhead vapor stream and a first bottoms liquid stream;
- introducing the first bottoms liquid stream to an intermediate feed point of the second fractionation zone;

- (c) reboiling a hydrocarbon liquid sidestream removed from an intermediate liquid side draw point of the first fractionation zone and reinjecting the resulting reboiled hydrocarbon sidestream into the first fractionation zone at a point below the intermediate liquid side draw point;
- (d) removing a hydrocarbon vapor sidestream from below the intermediate liquid side draw point of the first fractionation zone;
- (e) introducing the hydrocarbon vapor sidestream to an upper feed point of the second fractionation zone; and
- (f) recovering a second overhead vapor stream and a second bottoms liquid stream from the second fractionation zone.

(Compl. specn. 13 pages.)

Drg. one sheet)

Ind. Cl. : 144 D.

171636

Int. Cl. : C 09D 3/00, 3/58, 3/80 &amp; 5/08.

Title : AN IMPROVED PROCESS FOR THE PREPARATION OF A THERMOSETTING ACRYLIC PAINT.

Applicant : COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAJI MARG, NEW DELHI-110 001, INDIA, AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XXI OF 1860).

Inventors : SWAMINATHAN KRISHNAN & SUBBIAH GURUVIAH.

Application for Patent No. 819/Del/87 filed on 18 Sept. 1987.

Complete Specification left on 24 Oct. 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

## 6 Claims

An improved process for the preparation of thermosetting acrylic paint which comprises polymerising acrylic ester monomers such as herein described alongwith initiator selected from Azobisisobutyronitrile (AIBN) or benzyl peroxide both in toluene or xylene and in the range of 1 to 3% of the monomers under reflux for 3-4 hrs till the molecular weight of the copolymer so formed reaches the range between 25000—30000, blending the resultant copolymer with epoxy resin of epoxide equivalent 190—210 mol. wt. dispensing the resultant blended mixture with pigments and additives such as herein described grinding followed by adjusting the consistency of the final product using xylene as solvent.

(Provisional specification 6 pages).

(Compl. specn. 9 pages).

Ind. Cl. : 32 B.

171637

Int. Cl. : C 07 C 13/18, C 07 C 27/10, 27/12.

Title : A METHOD OF OXIDATION OF CYCLOHEXANE TO PRODUCE CYCLOHEXANONE AND CYCLOHEXANOL.

Applicant : ZAKŁADY AZOTOWE IM. F. DZIERŻYŃSKIEGO, OF 33-401 TARNÓW, UL. LIPOWA 8, POLAND. A POLISH COMPANY.

Inventors : (1) ANDRZEJ KRZYSZTOFORSKI. (2) KAZIMIER BALCERZAK. (3) STANISŁAW CIBOROWSKI. (4) ANTONI JANUSZ GUCWA. (5) ALINA JANITZ. (6) ANDRZEJ KASZŃA. (7) STANISŁAW MACIEJCZYK. (8) HENRYK MARCHWIANY. (9) MAREK POCHWAŁSKI. (10) RYSZARD POHORECKI. (11) STANISŁAW RYGIEL. (12) ZBIGNIEW SCHIMMELPFENNING. (13) JOZEF SZPARSKI. (14) ALEKSANDER USZYŃSKI. (15) JAN WAJS. (16) WOJCIECH LUBIEWA WIELEZYŃSKI. (17) ZBIGNIEW WOJCIK. (18) TADEUSZ VIEWEGER. (19) MICHAŁ ZYLBERZTEIN.

Application for Patent No. 825/Del/87 filed on 18th September, 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## 2 Claims

A process for the oxidation of cyclohexane to produce cyclohexanone, and cyclohexanol, which comprises oxidizing in any known manner, cyclohexane in liquid phase under the pressure, of oxygen containing gases in the presence of catalysts which contain salt of metals of variable valency and, particularly, cobalt naphthenate, at temperatures ranging within the limits from 150 to 200°C, with maintaining the degree of conversion upto 5% effected in more than one reaction stage, in barbotage system, characterised in that at a concentration of cobalt naphthenate ranging within the limits from 0.2 upto 5 ppm, preferably from 0.5 upto 3 ppm Co in cyclohexane entering the reactor, the limited concentration of oxygen dissolved inside the liquid phase in a given reaction stage is kept in average not higher than  $31.1 \times 10^{-4}$  mol/dm<sup>3</sup> at a temperature of 150°C at a degree of conversion equal to 1%,  $25.8 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 2%,  $22.3 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 3%,  $19.5 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 4%,  $17.4 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 5%, at a temperature of 160°C —  $15.4 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 1%,  $12.8 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 2%,  $11.0 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 3%,  $9.7 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 4%,  $8.6 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 5%, at a temperature of 170°C —  $7.6 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 1%,  $6.3 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 2%,  $5.4 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 3%,  $4.8 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 4%,  $4.2 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 5%; at a temperature of 180°C —  $3.8 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 1%,  $3.1 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 2%,  $2.7 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 3%,  $2.4 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 4%,  $2.1 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 5%, at a temperature of 190°C —  $1.9 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 1%,  $1.6 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 2%,  $1.3 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 3%,  $1.2 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 4%,  $1.0 \times 10^{-4}$  mol/dm<sup>3</sup> at a degree of conversion equal to 5%, at a temperature of 200°C —  $9.0 \times 10^{-5}$  mol/dm<sup>3</sup> at a degree of conversion equal to 1%,  $8.0 \times 10^{-5}$  mol/dm<sup>3</sup> at a degree of conversion equal to 2%,  $7.0 \times 10^{-5}$  mol/dm<sup>3</sup> at a degree of conversion equal to 3%,  $6.0 \times 10^{-5}$  mol/dm<sup>3</sup> at a degree of conversion equal to 4%,  $5.0 \times 10^{-5}$  mol/dm<sup>3</sup> at a degree of conversion equal to 5%, maximum dissolved oxygen concentration for intermediate parameters being determined by means or linear interpolation.

(Compl. specn. 20 pages.)

Drg. one sheet)

Ind. Cl. : 145 B.

171638

Int. Cl. : B 41 M 5/08.

Title : A PROCESS FOR PRODUCTION OF FILM BASED CARBON PAPER.

Applicant : COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, RAJI MARG, NEW DELHI-110 001.

Inventors : CHOWDHURY NATH SAIKIA, TRIDIP GOSWAMI, PRAFULLA PRAN BARUA, BANI PRASAD CHALIHA.

Application for Patent No. 883/Del/87 filed on 8th October, 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## 12 Claims

A process for making film based carbon paper which comprises preparing a receptive undercoating for polyester film by mixing polystyrene, a solvent as herein described, cellulose powder and light kaoline clay; in the form of a paste, coating the polyester film with the said receptive coating by conventional method, coating the resulting coated polyester film with a carbon coating mix in the form of paste prepared from polystyrene, ethyl cellulose, black, oil soluble dye, kaoline clay, cellulose powder, a vegetable oil, a fatty acid, a plasticizer and a pigment.

(Compl. specn. 13 pages

Drg. Nil)

Ind. Cl. : I. A. XLII (1).  
144E. 2.XII(1)  
XII(3).

171639

Int. Cl.<sup>4</sup> : C 08 L 87/00.

METHOD OF PRODUCING AN ADHESIVE COMPOSITION TRANSPARENT TO AND CURABLE BY CURING RADIATION.

Applicant : TREMCO INCORPORATED, A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF OHIO, UNITED STATES OF AMERICA, OF 10701 SHAKER BOULEVARD, CLEVELAND, OHIO 44104, UNITED STATES OF AMERICA.

Inventors : LAUTENS CHLAEGER FRIEDRICH KARL WOLFGANG, REYNALDO GUNGAB BUMANLAG, JAMES ALLEN BOX.

Application for Patent No. 930/DEL/87 filed on 23-10-87.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## 9 Claims

A method of producing an adhesive composition transparent to and curable by curing radiation, the curing being inhibited by oxygen which comprises :

reacting a long chain polymer material such as herein described, said functional groups, with a side chain-described, said polymer material having a plurality of non-terminal side functional groups, with a side chain-forming compound such as herein described, said side chain-forming compound having a first end functional group reactive with said side functional groups of said long chain polymer material and a second end vinyl group remote from said first end functional group to form a long chain polymer material having a plurality of short pendant side chains with terminal vinyl groups, and

admixing the resulting long chain polymer material with a cross-linking agent such as herein described which is effective, in the presence of curing radiation and the absence of oxygen, to form cross-linking bridges containing the terminal vinyl groups.

(Compl. specn. 91 pages

Drgs. 3 sheets)

Ind. Cl. : 32 B IX (1).

171640

Int. Cl. : C 07 C 7/00, 7/148

A CONTINUOUS PROCESS FOR TREATING A SOUR HYDROCARBON STREAM TO PRODUCE A SUBSTANTIALLY DISULFIDE AND MERCAPTAN-FREE PRODUCT.

Applicant : UOP INC., A CORPORATION ORGANISED AND EXISTING UNDER THE LAWS OF THE STATES OF DELEWARE IN THE UNITED STATES OF

AMERICA WITH ITS PRINCIPAL OFFICE LOCATED AT 2 EAST ALGONQUIN ROAD, DES PLAINES, ILLINOIS 60017-5017, UNITED STATES OF AMERICA.

Inventors : JEFFERY CHRISTOPHER BRICKER, BRUCE EDWARD STAEHLE.

Application for Patent No. 940/DEL/87 filed on 28th October, 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## 8 Claims

A continuous process for treating a sour hydrocarbon stream, such as herein described, containing mercaptans to produce a substantially disulfide—and mercaptan-free product hydrocarbon stream which comprises the steps of :

- (a) contacting said hydrocarbon stream with an aqueous substantially disulfide-free alkaline solution in an extraction zone at a temperature of 100° to 100°C and a pressure from ambient to 300 psig to form a substantially disulfide—and mercaptan-free purified hydrocarbon stream and a mercaptide-rich aqueous alkaline solution.
- (b) passing said mercaptide-rich aqueous alkaline solution to an oxidation zone and therein treating said mercaptide-rich aqueous alkaline solution with an oxidation agent such as oxygen or air, in the presence of an ametal phthalocenic oxidation catalyst at temperature of 30° to 70°C and a pressure of 30 to 100 psig to oxidize mercaptides to liquid disulfide from;
- (c) separating a major portion of said liquid disulfide from said treated aqueous alkaline solution in a separating zone to form a treated aqueous alkaline solution containing residual disulfides;
- (d) passing said residual disulfide-containing treated aqueous alkaline solution to a reduction zone and therein subjecting said solution to reduction conditions, such as herein described including temperature of 300° to 150° C and a pressure of 30 to 150 psig to reduce disulfides to mercaptans; and
- (e) recycling the resulting substantially disulfide-free solution containing to said extraction zone.

(Compl. specn. 20 pages.

Drg. One sheet)

Ind. Cl. : 32 E+152 F.

171641

Int. Cl.<sup>4</sup> : C 08 L 7/02, 9/06.

PROCESS FOR PRODUCING FOAMED ELASTOMERIC COMPOSITIONS.

Applicant : UNIROYAL CHEMICAL COMPANY, INC., A CORPORATION ORGANIZED UNDER THE LAWS OF THE STATE OF NEW JERSEY, ONE OF THE UNITED STATES OF AMERICA, LOCATED AT WORLD HEAD-QUARTERS, MIDDLEBURY, CONNECTICUT 06749 (USA).

Inventors : BYRON ALEXANDER HUNTER, LEE DUANE HANSEN, DONALD GEORGE ROWLAND.

Application for Patent No. 973/DEL/87 filed on 13th November, 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

## 12 Claims

A process for producing a foamed elastomeric composition comprising the steps :

(A) forming a blend comprised of :

- (1) a foamable, curable elastomer such as herein described;



- (2) a curative such as, herein described; and
- (3) a blowing agent composition consisting essentially of;
- (i) azodicarbonamide; and
  - (ii) at least one member selected from the group consisting of zinc salts of  $C_1$ - $C_6$  organic acids and  $C_1$ - $C_6$  carboxamides; and

(B) heating such blend to between 130°C and 170°C for a period of time sufficient to foam and cure said blend.

(Compl. specn. 22 pages.

Drg. Nil)

Ind. Cl.: 153

171642

Int Cl.: C23C2/00, 14/00.

# APPARATUS FOR STRIPPING EXCESS COATING FROM AN UPWARDLY AND VERTICALLY MOVING STRIP.

Applicant: JOHN LYSAGHT (AUSTRALIA) LIMITED, a Company incorporated under the laws of the State of New South Wales, of 50 Young Street, Sydney, New South Wales, AUSTRALIA.

Inventor: CAT VO TU.

Application for Patent No.: 976/DEL/87 filed on 16th November, 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

(Claims 2)

Apparatus for stripping excess coating liquid from a strip (1) moving upwardly in a substantially vertical plane, said apparatus being of the kind comprising nozzle means for directing a substantially horizontal stream of stripping gas onto a coated face of the strip (1), a carrier plate (4) adjacent the region of impingement of the gas stream on the strip (1) and lying in the plane of the strip (1), a baffle plate (2) integral with and extending along an edge of the carrier plate (4) and comprising a vertical portion (3A) adjacent an edge of the strip (1) lying in a vertical plane substantially perpendicular to the plane of the strip (1) and a non-vertical remainder portion (3B, 3C) below said vertical portion (3A) curving away from said strip edge, a carriage (6) from which said carrier plate (4) depends and which is movable towards and away from said strip edge, means (9) urging said carriage (6) contacting said strip edge to maintain a minimum spacing between said strip edge and said vertical portion (3A) of the baffle plate (2) so as to produce a substantially uniformly thick coating over the width of the strip; characterised in that an eductor (20) is provided integral with said carrier plate (4) with its intake end (22) directed towards said strip edge positioned at or near the junction of said vertical portion (3A) of said baffle plate (2) and said non-vertical remainder portion thereof (3B, 3C).

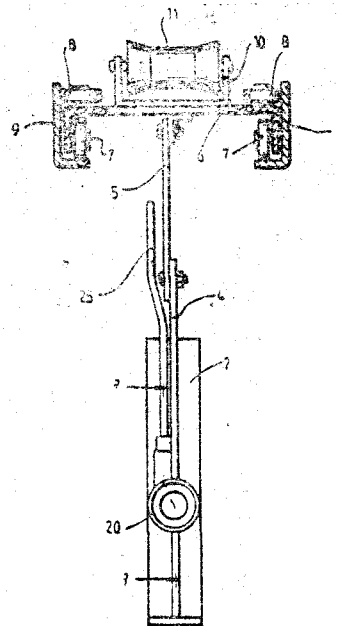


Fig. 2

(Complete specification 10 pages Drawing sheets Two).

Ind. Cl.: 158 B2.

171643

Int. Cl.: F16 F11/00.

# DRAFT GEAR FOR A RAILWAY CAR HAVING A CENTER LINE ALONG ITS MAJOR AXIS.

Applicant: MINER ENTERPRISES, INC., a corporation organized and existing under the laws of the State of Delaware, U.S.A., of 1200 East State Street, Geneva, State of Illinois, United States of America.

Inventor: RICHARD ALAN CARLSTEDT.

Application for Patent No.: 999/DEL/87 filed on 20th November, 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

(Claims 8)

A draft gear for a railway car having a center line along its major axis (20) comprising: a hollow housing (24) having a generally tubular body with a first open end (26) and a second closed end (28); a spring member (30) disposed within said hollow housing (24) adjacent said second closed end including an inner coil, a middle coil, an outer coil and a corner coil; a friction means (40) disposed adjacent said first open end including: a friction plate (22) centrally disposed along said major axis having a first end which extends out of said hollow housing and a second end situated down in said first open end; first and second barrier plates disposed one on either side of said friction plate, said first and second barrier plates being anchored against longitudinal movement and responding to lateral pressure; first and second friction wedges, said first friction wedge being disposed on one side of said first barrier plate and said second friction wedge being disposed on one side of said second barrier plate, each of said first and second friction wedges having first and second angled members; first and second shoes, said first shoe being disposed on one side of said first friction wedge and said second shoe being disposed on one side of said second friction wedge, each of said first and second shoes having first and second angled members; first and second wear liner plate means disposed one on either side of said first and second shoes and being anchored to said first open end against longitudinal and lateral movement; a release wedge means having a horizontally extending body portion and having first



and second, angled members cooperable with said second angled members of said friction wedges; and a spring seat having an aperture means and angled portions cooperating with said second angled members of said shoes.

(Complete specification 14 pages drawing sheet one).

Ind. Cl.: 90G

171644

Int. Cl.4: C03C 17/06

A PROCESS FOR THE PREPARATION OF A SOL USEFUL AS PRECURSOR FOR ANTI-GLARE COATING ON GLASS SUBSTRATES.

Applicant: COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, Rafi Marg, New Delhi-110001, India, an Indian registered body incorporated under the Registration of Societies Act (Act XXI of 1860).

Inventors: DEBTOSH KUNDU, PRASANTA KUMAR BISWAS AND DIBYENDU GANGULI.

Application for Patent No. 1023 DEL 87 filed on 01 Dec 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

(Claims 5)

A process for the preparation of a sol useful as a precursor for anti-glare coatings on glass substrates which comprises:

- (a) preparing a solution of analytical reagent grade acetic acid and one or more alcohols having 3-4 carbon atoms in the molecule, the molar proportion of acetic acid to the alcohol being in the range of 20:2 to 6:38,
- (b) adding 60% by wt. the solution obtained at step (a) above to a zirconium alkoxide in liquid form so that the resultant solution contains acetic acid, alcohol and alkoxide in molar proportion of 13.33:1.33:1 to 4:25.33:1,
- (c) adding a cobalt salt selected from cobalt nitrate and cobalt chloride dissolved in water to the remaining 40% of the solution obtained at step (a) above such that the molar proportion of acetic acid, alcohol, water and the cobalt salt ranges from 6.66:0.66:20:0.54-1.32 to 2:12.66:6:0.54-1.32 and
- (d) adding the solution obtained at step (c) above to the solution obtained at step (b) above so as to produce a sol having the molar proportion of zirconium alkoxide, acetic acid, alcohol, water and the cobalt salt in the range of 1:20:2:20:0.54-1.32 to 1:6:38:6:0.54-1.32.

(Complete specification 14 pages).

Ind. Cl.: 90G.

171645.

Int. Cl.: C03C 17/06.

A PROCESS FOR PROVIDING ANTI-GLARE COATINGS ON GLASS SUBSTRATES AND THE GLASS SUBSTRATES SO PREPARED.

Applicant: COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, Rafi Marg, New Delhi-110001, India, an Indian registered body incorporated under the Registration of Societies Act (Act XXI of 1860).

Inventors: DEBTOSH KUNDU, PRASANTA KUMAR BISWAS AND DIBYENDU GANGULI.

Application for Patent No. 1024 DEL 1987 filed on 01 Dec 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

Claims 5

A process for providing antiglare coatings on a glass substrates which comprises coating the substrates with sol formulation obtained by:

- (a) preparing a solution of analytical reagent grade acetic acid and one or more alcohols having 3-4 carbon atoms in the molecule, the molar proportion of acetic acid to the alcohol being in the range of 20:2 to 6:38,
- (b) adding 60% by wt. the solution obtained at step (a) above to a zirconium alkoxide in liquid form such that the resultant solution contains acetic acid, alcohol and alkoxide in molar proportion of 13.33:1.33:1 to 4:25.33:1,
- (c) adding a cobalt salt selected from cobalt nitrate and cobalt chloride in water to the remaining 40% of the solution obtained at step (a) above such that the molar proportion of acetic acid, alcohol water and the cobalt salt ranges from 6.66:0.66:20:0.54-1.32 to 2:12.66:6:0.54-1.32,
- (d) adding the solution obtained at step (c) above to the solution obtained at step (b) above so as to produce a sol such that the molar proportion of zirconium alkoxide, acetic acid, alcohol, water and the cobalt salt is in the range of 1:20:2:20:0.54-1.32 to 1:6:38:6:0.54-1.32, containing polymer particles dispersed in the alcoholic-acetic acid medium.
- (e) applying the said sol by dip coating technique on the glass substrate to form a thin liquid film on the substrate heating the coated substrate to a temperature upto a maximum of 500 C.

(Complete Specification 15 pages).

Ind. Cl.: 40F.

171646

Int. Cl.: C08J 5/22.

A PROCESS FOR THE PREPARATION OF POLYMERIC MEMBRANE USEFUL FOR THE SEPARATION AND CONCENTRATION OF INORGANIC COMPLEX MOLECULES.

Applicant: COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH Rafi Marg, New Delhi-110 001, India, an Indian registered body incorporated under the Registration of Societies Act (Act XXI of 1860).

Inventors: MIRZA MOHAMMED TAQUI KHAN, SHIVAPPA BASSAPPA HALLIGUDI, RAMAMURTI RANGARAJAN, NAIVEDYA VIDYUTRAI DESAI, AYYANASO-MAYAJULA VISWESWARA RAO.

Application for Patent No. 1052 DEL 87 filed on 8 Dec 1987.

Complete specification left on 24 Feb 1989.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

(Claims 4)

A process for the preparation of polymeric membrane useful for the separation and concentration of inorganic complex molecules having molecular weight —500 and selected from homogenous complex catalyst which comprises mixing a polymer having a molecular weight around 60,000-70,000 daltons and a pore former selected from formamide, dimethyl formamide, magnesium perchlorate in an organic solvent keeping the solution for a period sufficient to eliminate air bubbles for 30-60 hours, casting the solution on a glass plate or a polymeric sheet in a manner such as herein described such that the thickness is between 0.15-0.25 mm, holding the

sheet for 30-60 sec. for evaporation, then gelling the glass sheet or polymeric sheet with the cast membrane in ice cold water at a temperature in the range of 0-4°C for a period such as herein described.

(Provisional specification 3 pages).

(Complete specification 14 pages drawing sheet 1).

Ind. Cl. : 40 H.

171647

Int. Cl.4 : B 01 D 53/02.

#### A METHOD FOR THE SEPARATION OF MORE ADSORBABLE COMPONENTS.

Applicant : UNION CARBIDE CORPORATION, MANUFACTURERS, A CORPORATION ORGANISED AND EXISTING UNDER THE LAWS OF THE STATE OF NEW YORK, UNITED STATES OF AMERICA WITH OFFICES AT 39 OLD RIDGEBURY ROAD, DANBURY, STATE OF CONNECTICUT, 06817, UNITED STATES OF AMERICA.

Inventor : ANDRIJA FUDERER.

Application for Patent No. 1065/DEL/87 filed on 11 Dec. 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110 005.

#### 15 Claims

A method for the separation of more adsorbable components such as herein described from less adsorbable components such as herein described on fixed adsorbent beds, comprising the steps of :

- (a) flowing a feed gas mixture such as herein described under adsorption pressure to an adsorbent bed having a feed end and a product end to selectively adsorb said more adsorbable components from said feed gas onto the adsorbent bed,
- (b) displacing said feed gas with a gas having a higher concentration of said more adsorbable components, whereby said less adsorbable components are displaced from a portion of the bed; and
- (c) depressurizing the bed by taking out gas simultaneously from at least two different locations of the bed to recover essentially pure said less adsorbable components at the product end of the bed and to recover the more adsorbable components from at least one of the different locations; and
- (d) repressurizing the bed in a manner such as herein described.

(Compl. specn. 29 pages).

Drgs. 3 sheets)

Ind. Cl. : 32 A<sub>2</sub>.

171648

Int. Cl.4 : C 07 D 209/09.

#### AN IMPROVED PROCESS FOR THE PREPARATION OF SOLVENT RESISTANT, HIGH TINTING STRENGTH COPPER PHTHALOCYANIN BLUE PIGMENT.

Applicant : COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-1100001, INDIA, AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XXI OF 1860).

Inventors : TURAGA PRABHAKARA PRASAD & KODAVANTI VENKATA KASIPATI RAO.

Application for Patent No. 1092/DEL/87 filed on 17 Dec. 1987.

Complete specification left on 14 Mar 1989.

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, New Delhi-110 005.

#### 5 Claims

An improved process for the preparation of solvent resistant, high tinting strength copper phthalocyanin blue pigment, which comprises making a uniform acid paste of raw phthalocyanin blue with an acid adding the said acid paste to a water emulsified with an organic solvent & maintained at 40°C to 60°C, homogenising the resultant mixture by stirring, followed by setting, decanting, filtering, washing with water, drying at 50°-60°C in vacuum and pulverising the resultant dried product.

(Provisional Specn. 4 pages).

(Compl. specn. 6 pages).

Ind. Cl. : 35 E.

171649

Int. Cl.4 : C 04 38/10.

#### AN IMPROVED PROCESS FOR THE PREPARATION OF INSULATING BRICKS FROM TALC.

Applicant : COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-1100001, INDIA, AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XXI OF 1860).

Inventors : MAHENDRA PATEL, AJOY KUMAR RAY, ANJU GUPTA & BHAROS KUJUR.

Application for Patent No. 1107/DEL/87 filed on 22 Dec. 1987.

Complete Specification left on 07 Feb 1989.

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, New Delhi-110 005.

#### 3 Claims

An improved process for the preparation of insulating bricks from talc which comprises grinding the talc for the desired size, preparing a mixture consisting of 58-60% talc, 23% water and 10-12% of sodium silicate of a specific gravity 1.4 gm/ml, adding a foaming agent such as liquid soap ranging from 4-10% to the said mixture, then baking the mixture in a mould at a temperature between 600-700°C for 3-5 minutes and finally firing the baked mixture at a temperature of 900°C.

(Provisional specn. 4 pages).

(Compl. specn. 5 pages).

Ind. Cl. : 83 A 1 XIV (5), 83 A 2.

171650

Int. Cl.4 : A 23 C 11/06, A 23 D 5/00.

#### METHOD FOR PREPARING FOOD PRODUCTS FROM LEGUMES AND THE LIKE SEEDS.

Applicant : RAJENDRA PRASAD GUPTA & RASHMI REKHA GUPTA, WHOSE FULL POST OFFICE ADDRESS IS 627, GAINES DRIVE, GLOUCESTER, ONTARIO, K1J 7W7, CANADA, CANADIAN NATIONALITY.

Inventors : RAJENDRA PRASAD GUPTA & RASHMI REKHA GUPTA.

Application for Patent No. 14/DEL/88 filed on 11th January, 1988.

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, New Delhi-110 005.

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#### REGISTRATION OF DESIGNS

The following designs have been registered. They are not open to inspection for a period of two years from the date of registration except as provided for in Section 50 of the Designs Act, 1911.

The date shown in the each entries is the date of the registration of the design included in the entry.

- Class 1. No. 164214. Elengical Joseph Sunny of Elengical, Pattathanam, Vadakevila P.O., Kollam 691010, Kerala, India, an Indian, Citizen. "Combined core for electrical energy meter". April 2, 1992.
- Class 1. No. 164225. Khanna Quartz Limited, Indian Company of 60, Sector-26, Madhya Marg, Chandigarh-160026, Punjab, India. Registered office at 22 Sector III, Industrial Estate, Parwanoo-173220 (Dist. Solan), Himachal Pradesh, India. "Dial for use in a time measuring device/instrument". April 3, 1992.
- Class 1. No. 164230. Timex Corporation of Waterbury, Connecticut-06722, U.S.A. an American Company. "Digital Wristwatch". April 6, 1992.
- Class 1. Nos. 164295 & 164297. Castrol India Limited, an Indian Company of White House, 91, Walkeshwar Road, Bombay-400006, Maharashtra, India. "Cap". April 28, 1992.

Class 1. No. 164352. Dharampal Ashok Kumar Tobacco Company Pvt. Ltd., Indian Company of D-2, Sector-2, Noida District, Ghaziabad, U.P., India. "Container". May 8, 1992.

Class 3. No. 164243. Clampi Corporation CC. of 2nd floor, Verwoerdburgstad Office Tower, Verwoerdburg, Transvaal, South Africa. "Clip". April 10, 1992.

Class 3. No. 164251. Slipstream Automotive Accessories, P-45/90, 1st floor, Connaught Circus, New Delhi-110001, India, a proprietary firm. "Wind shield fairing". April 13, 1992.

Class 3. No. 164265. Sinter Plast Containers, Plastics Division of the Bharat Vijay Mills Ltd., of Kalol (North Gujarat), Pin: 382721, Gujarat, India. "Planter Container". April 20, 1992.

Class 3. Nos. 164296 & 164298. Castrol India Limited, Indian Company of White House, 91, Walkeshwar Road, Bombay-400006, Maharashtra, India. "Cap". April 28, 1992.

Class 3. Nos. 164317 & 164318. Dharampal Ashok Kumar Tobacco Co. Pvt. Ltd., Indian Company of D-2, Sector-2, Noida District, Ghaziabad, U.P., India. "Pouche". April 29, 1992.

Class 3. No. 164326. Crystal Plastics & Metallizing Pvt. Ltd., Sanghi House, Palkhi Galli, Off. Veer Savarkar Marg, Prabhadevi, Bombay-400025, Maharashtra, India. "Comb". May 5, 1992.

Class 3. No. 164359. Sarishta Jaggi, Her-by International E-38 Greater Kailash, Part-II, New Delhi-110048, India, Indian. "Bottle". May 11, 1992.

Class 3. No. 164491. Acol Industries, R/47, Rabindranally, Calcutta-86, West Bengal, India, Indian Partnership Firm. "Container". June 29, 1992.

Class 3. No. 164506. Plastella Indian Partnership Firm of 91, Swami Vivekanand Road, Borivli (W), Bombay-400092, Maharashtra, India. "Comb". July 3, 1992.

Class 3. No. 164551. Lakme Limited, Indian Company of Bombay House, 24, Horni Mody Street, Bombay-400001, Maharashtra, India. "Lipstick". July 16, 1992.

Class 3. No. 164660. SMI Commercial Pvt Ltd. of 23A, Netaji Subhas Road, 4th floor, Room No. 18, Calcutta-700001, West Bengal, India, Indian Company. "Pouch". August 7, 1992.

Class 4. No. 164358. Dharampal Ashok Kumar Tobacco Co. Pvt. Ltd., Indian Company of D-2, Sector-2, Noida District, Ghaziabad, U.P., India. "Bottle". May 8, 1992.

Class 5. No. 164226. Khanna Quartz Ltd., Indian Company of 60, Sector-26, Madhya Marg, Chandigarh-160026, Punjab, India/Regd. Office 2 Sector III, Industrial Estate, Parwanoo 173220 (Dist. Solan), Himachal Pradesh, India. "Dial for use in a time measuring device/instrument". April 3, 1992.

R. A. ACHARYA

Controller General of Patents Designs and trade marks

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